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27th August,
1941*



Small Arms Training
Volume I, Pamphlet No. 13, 1937
SUPPLEMENT No. 2
No. 73 Anti-tank Grenade (Hand)
The S.T. Grenade (Hand)
The Hand Incendiary Bomb

1941

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By Command of the Army Council,

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THE WAR OFFICE,
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DISTRIBUTION

As for Pamphlet No. 13.

SECTION 1.—THE No. 73 ANTI-TANK GRENADE (HAND)

GENERAL

The object of the grenade is to damage armoured fighting vehicles, the best effect being obtained when used against the track or suspension of a tank. Owing to its weight and shape it can be thrown only quite short distances, 10-15 yards; and, owing to the powerful nature of the grenade, it is absolutely essential that the thrower is behind cover. The use of it, therefore, is limited to ambushes or for road blocks. Weight approximately 4 lb.

LESSON 14.—THE No. 73 ANTI-TANK GRENADE (HAND)

Stores :—

One dummy grenade, instructional; grenades, drill, for throwing.

1. Explain briefly General Notes.

2. **Description.**—Instructor explains and demonstrates, mentioning names of main parts (*see Plate 1*) :—

- The grenade consists of a tinned-plate casing, with a screw-on tinned-plate lid at the top. In the centre of the lid is fixed a mechanism holder, covered by a safety cap. The body of the grenade is filled with high explosive. It is painted buff, with a red band, and stencilled 73 A.T., Mark and filling.

ii. Question squad.

3. **To prime the grenade.**—Explain and demonstrate :—

- Remove the adhesive tape from rim of tinned-plate lid. Unscrew the lid, keeping the safety cap on. On the under-side of the lid is a tube. Unscrew this from the lid and inspect it to ensure it is free from obstruction. Insert the detonator into this tube, closed end first, i.e. *open* end of detonator to *open* end of tube. Screw tube with detonator back on to the lid. Screw the lid firmly back on to the grenade, being careful to insert the detonator tube centrally into the hole in the explosive. The grenade is now ready for use.

NOTE.—Should the lid be found to jump the threads of the canister when screwing it down, strips of paper, flannelette or tape should be placed on the threads and the lid screwed down over them.

ii. Question squad.

4. Mechanism.

i. Having removed the safety cap, the tape is kept in position by the fingers. When the grenade is thrown, the weight at the end of the tape causes it to unwind, thereby withdrawing the safety bolt. Only a creep spring is now holding the striker apart from the cap. On impact, the striker overcomes the creep spring, fires the cap which sets off the detonator. This explodes the grenade.

ii. Question squad.

5. To throw the grenade.—Explain and demonstrate :—

i. Having removed the adhesive tape on the safety cap, remove the safety cap. Lay the grenade along the forearm with the mechanism holder in the hand, keeping a finger on the safety tape to prevent it unwinding. Throw the grenade with an overarm bowling action and duck below the cover at once. If used on soft ground, throw well into the air to ensure functioning.

ii. Question and practise squad in throwing with grenades, drill.

6. Care and packing.

i. The H.E. filling must not be exposed to moisture. It is also inflammable, therefore the grenade should not be stood near a naked flame. As with all grenades, it is sensitive to small arms fire when primed, and should, therefore, be kept under cover if possible.

ii. The grenades are packed in a green tin box, ten in a box ; also ten detonators in a cylindrical container in the same box. The box is stencilled in yellow with a description of the contents.

7. Question squad on the complete lesson.

SECTION 2.—THE S.T. GRENADE (HAND)

GENERAL

This grenade has been introduced for use against light A.F.Vs. It is designed to stick to a suitable target, thus ensuring that the high explosive has its maximum effect. The grenade will NOT stick should the surface be wet or muddy.

The grenade is suitable for use at road blocks, positions of ambush, or for dropping from upstairs windows on to tanks.

Although the effect of the explosion is localized, the thrower must take cover owing to the blast.

For night raids on tank parks, the grenade is an ideal weapon. It can be regarded as a portable demolition charge and planted by hand instead of thrown, so long as the operator retreats in such a direction that he is protected from the explosion. With practice and training, the grenade can be thrown up to about 20 yards.

LESSON 15.—THE S.T. GRENADE (HAND)

Stores :—

One dummy instructional grenade complete.

Wooden dummy grenades for throwing.

1. Explain briefly General Notes.

2. **Description.**—Instructor explains and demonstrates, mentioning names of main parts (*see Plate 2*) :—

i. The body of the grenade consists of a glass flask filled with high explosive. To protect the grenade before use it is completely enclosed by a metal casing, hinged at the bottom and held in position round the neck of the flask by a pin or clip. The glass flask is covered with a sticky envelope to cause it to stick. Inside the neck of the flask is a tube to hold the detonator assembly. Before insertion, the neck is closed by wooden and rubber discs held in position by a screw cap.

ii. The throwing handle is attached to the neck of the flask by a screwed ring. The handle contains the striker and the striker spring, held in position by a lever fitting flush with the side of the handle and, in its turn, held securely in position by a safety pin. A label is attached to the safety pin.

iii. The detonator assembly consists of a percussion cap, 5-seconds fuze, detonator and a C.E. (composition exploding) pellet.

iv. Question squad.

3. **To prime the grenade.**—Explain and demonstrate :—

i. Unscrew the neck screw cap, remove and discard wooden and rubber discs. Take a detonator assembly and remove the cardboard sleeve protecting the C.E. pellet. Place the detonator assembly, pellet first, into the tube ; the rubber rings on the assembly will

hold it firmly in position. Attach the handle of the grenade to the neck of the flask by screwing the ring up tight.

ii. Question and practise squad in priming.

4. Mechanism.

i. When the safety pin is withdrawn, the striker is still held in position so long as the hand grips the lever. On throwing the grenade, the spring forces the striker down and fires the cap, the lever flying off. The cap ignites the fuze, which burns for 5 seconds, exploding the detonator which sets off the C.E. pellet, thus exploding the grenade.

ii. Question squad.

5. Throwing. Explain and demonstrate :—

i. The outer casing must be removed by pulling the pin (NOT the one with tag marked "DANGER") with the grenade hanging down, when it will fall off. To throw, pull out the safety pin, gripping the lever firmly against the handle with the fingers. The grenade may be thrown overarm or lobbed. If circumstances permit, it may be planted by hand on to the object, but this must be done with sufficient force to break the flask.

ii. Practise squad in throwing, using wooden dummies.

Note.—A soft target should be used to preserve the life of the dummies.

6. Packing.

S.T. grenades are packed in metal cases holding 5 grenades and handles.

Detonator assemblies are packed separately in cardboard tubes, 5 in a tube.

A tube of 5 should be placed in the spring clips provided for the purpose on the inside of the lid of the box of grenades.

7. Question squad on the complete lesson.

LESSON 16.—DESTRUCTION OF DEFECTIVE S.T. GRENADES

Stores :—

One dummy instructional grenade complete ; five wooden dummy grenades ; paraffin.

1. Explain briefly that S.T. grenades are liable to leakage ; they should be handled with care therefore, and unnecessary movement and jolting on transport should be avoided as far as possible. The leaking filling is of a nearly colourless, semi-liquid type. Though not very sensitive to friction, it is very sensitive to impact, and detonation may occur if the exposed explosive receives a blow due to careless handling.

A pad of absorbent material is packed with the grenades. This pad is to soak up leakage and to prevent contamination of hinges as far as possible.

2. Leaking grenades.—Instructor explains and demonstrates :—

i. Unless the grenade is broken, or the leakage has been exceptionally severe (i.e. more than a tablespoonful or so from a single grenade), it will be sufficient to wipe off the exposed explosive with rags.

If the bakelite collar is loose it should be screwed up again finger tight ; over-tightening will strain and crack the glass neck of the flask.

Care should be taken to avoid getting the explosive on the skin, and to wash the hands very thoroughly if it does. Skin contamination may produce severe headaches, and if food is contaminated by traces on the hands, nitro-glycerine poisoning may occur.

Contaminated rags should be destroyed at once by burning, in the open ; the explosive in the rags will burn fiercely, so they should be ignited with caution. Badly contaminated pads should be burnt in the same way.

Broken grenades, or those leaking very badly, should be destroyed by burning, under precautions, as follows :—

ii. Question squad.

3. Destruction of grenades.—Explain and demonstrate :—

i. This will only be carried out under the supervision of an officer. The grenades should be destroyed in a shallow trench or furrow, 6 to 8 inches deep and 9 to 12 inches wide. Not more than five grenades should be destroyed at once in one trench, and these must be spaced not less than one foot apart. A train of paper or shavings, sprinkled with paraffin, should be laid along the trench.

The metal covers should be removed from the grenades, the bakelite collar unscrewed ; the aluminium exploder container should be removed (it will be found to come out quite easily) and laid beside the grenade in the trench. Contaminated covers may also be placed in the trench.

If the grenade is not a broken one, a convenient piece of wood should be used to remove a proportion of the filling. The object of this is partly to reduce the amount of filling in the flask (thereby reducing

pressure and liability to detonate), and partly to provide a train of explosive from the contents to ensure ignition. The explosive so removed should be placed on the paper or shavings, care being taken that there is a definite train of explosive in the neck of the flask.

When all is ready, a further train of shavings or paper should be laid, from the down wind end of the trench, so that the person who lights it, who should be the officer i/c, can be well clear before the fire reaches the explosive. The train must be lit **from down wind**; this ensures slow burning against the wind. The bird-lime on the grenades will burn very slowly, and may smoulder for an hour: the explosive itself should burn out fiercely and quickly. No one should be permitted within 20 yards of the trench, until all signs of burning are over. The trench can then be filled in: it must not be used to burn a second lot unless it has been watered thoroughly to ensure that there are no smouldering bits of wood, roots, etc., to start a premature fire.

The officer i/c of the destruction will ensure that those employed are aware of the dangers of contamination on the skin. This can be prevented by the use of rags or anti-gas gloves.

He will ensure that personnel keep up wind during the burning, as the fumes will give severe headaches.

ii. Question and practise squad.

NOTE.—The wooden dummy grenades should be used to demonstrate the spacing of grenades in the trench, but should not be left to burn. The dummy instructional grenade should be used to demonstrate removal of the filling.

SECTION 3.—THE 1½ lb. HAND INCENDIARY BOMB

The bomb provides a simple, quick method of setting fire to stores, posts, buildings, crops, etc. To prepare it for use, remove the strip of adhesive tape and bakelite safety cap.

To fire the bomb, hold it in the hand, and either strike the .22 rim-fire cap with a stone, or strike the cap against a hard surface. This must be done sharply.

There is a 5-seconds delay action *after* firing the cap, which allows for the bomb to be placed or thrown as required. This, however, must be done immediately.

The bombs are packed 24 in a box.

PLATE 1

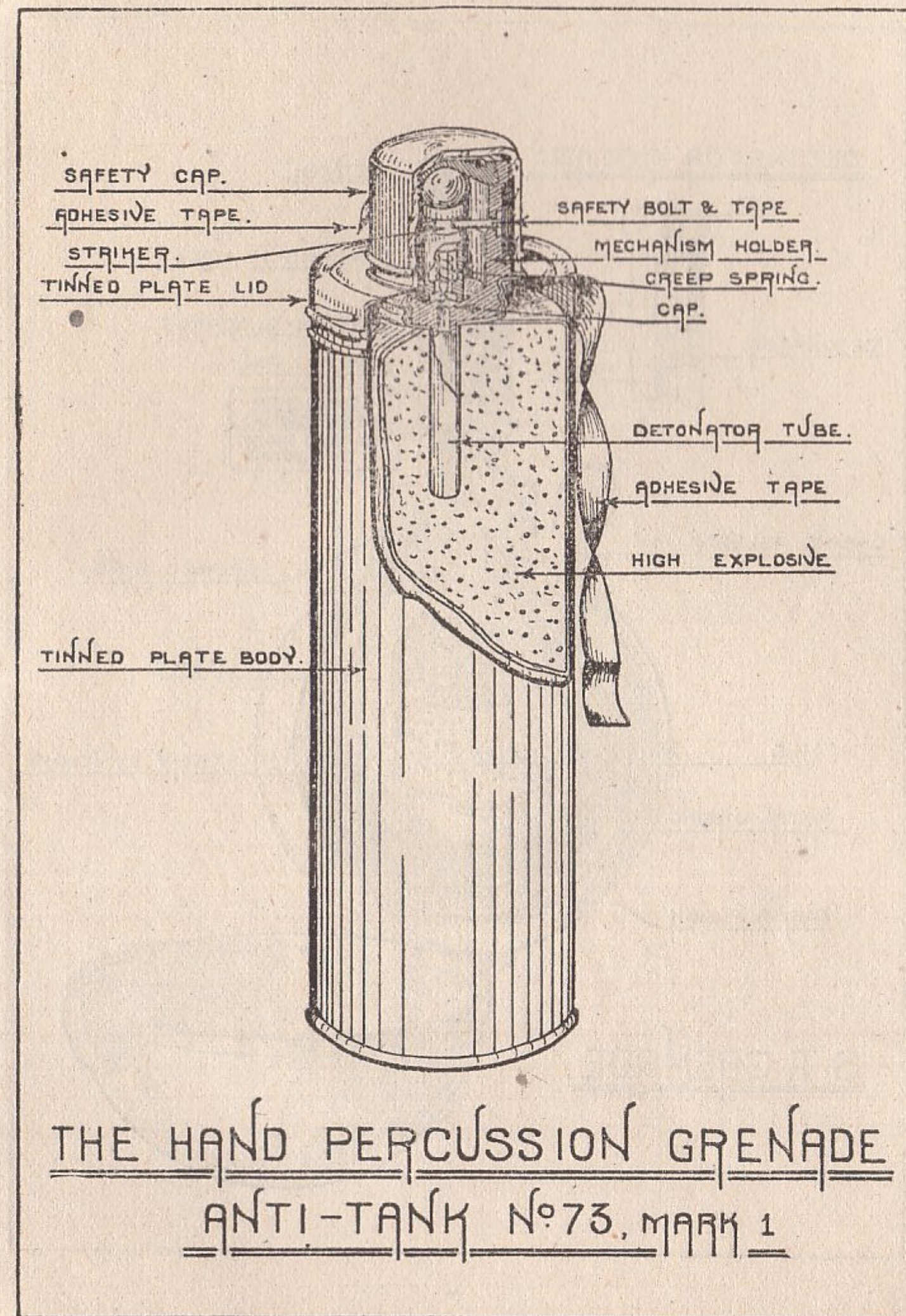
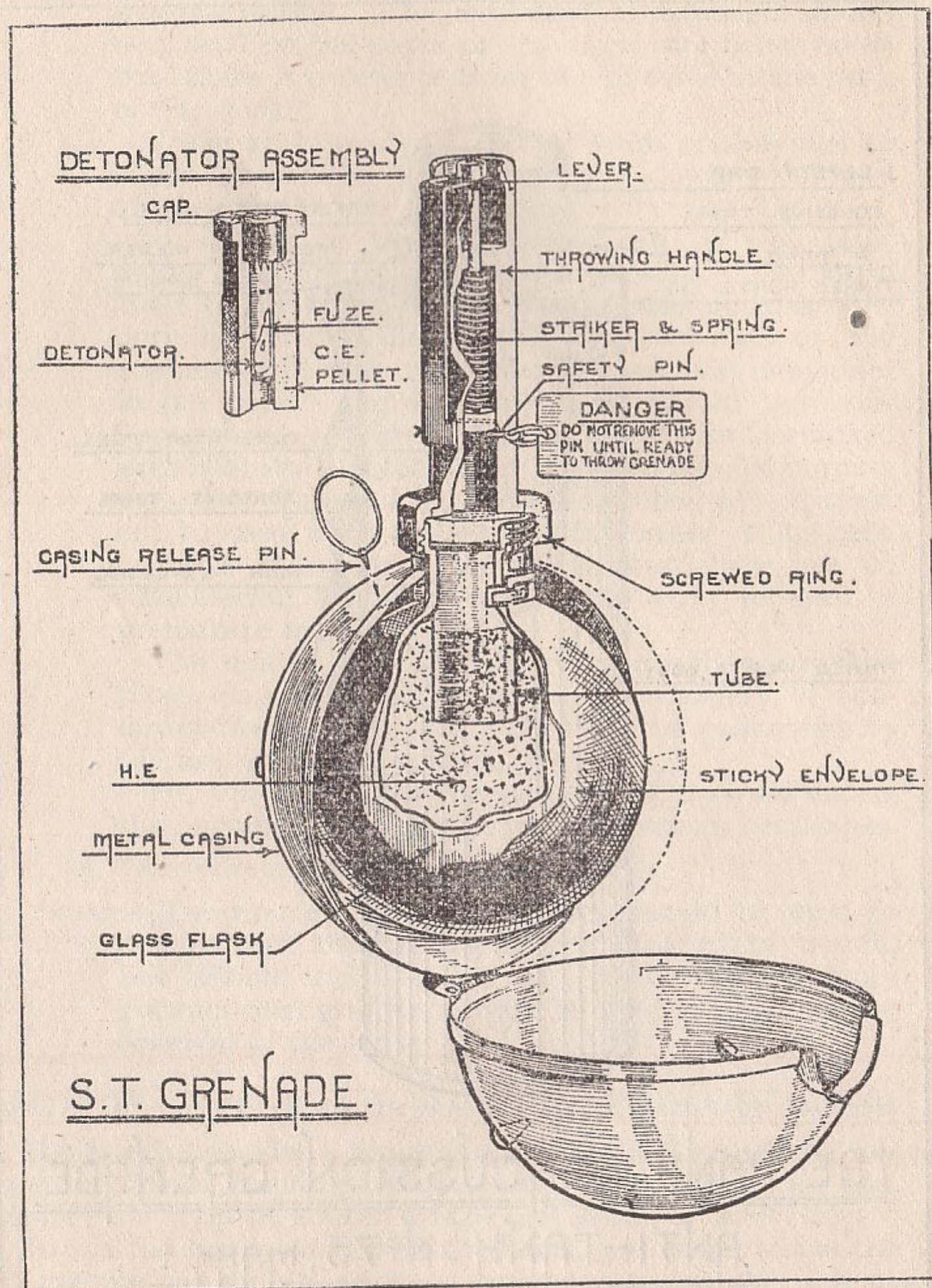


PLATE 2





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